

## ATTENT COOPERATION TREL. .TY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 10 October 2000 (10.10.00)	
International application No. PCT/US00/02237	Applicant's or agent's file reference PF-0662 PCT
International filing date (day/month/year) 28 January 2000 (28.01.00)	Priority date (day/month/year) 29 January 1999 (29.01.99)
Applicant TANG, Y., Tom et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
01 August 2000 (01.08.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Pascal Piriou
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

HAMLET-COX, Diana  
Incyte Pharmaceuticals, Inc.  
3174 Porter Drive  
Palo Alto, CA 94304  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 10 October 2000 (10.10.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference PF-0662 PCT	
International application No. PCT/US00/02237	International filing date (day/month/year) 28 January 2000 (28.01.00)

## 1. The following indications appeared on record concerning:

☒ the applicant    ☒ the inventor    ☐ the agent    ☐ the common representative

Name and Address AU-YOUNG, Janice, L. 1419 Kains Avenue Berkeley, CA 94702 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person    ☐ the name    ☒ the address    ☐ the nationality    ☐ the residence

Name and Address AU-YOUNG, Janice, L. 233 Golden Eagle Lane Brisbane, CA 94005 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input checked="" type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Pascal Piriou  Telephone No.: (41-22) 338.83.38
--	---



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b> <b>C12N 15/12, C12Q 1/68, C07K 14/47, 16/18, G01N 33/68, A61K 38/17</b>	<b>A2</b>	<b>(11) International Publication Number:</b> <b>WO 00/44900</b> <b>(43) International Publication Date:</b> 3 August 2000 (03.08.00)
<b>(21) International Application Number:</b> PCT/US00/02237 <b>(22) International Filing Date:</b> 28 January 2000 (28.01.00)  <b>(30) Priority Data:</b> 60/117,905                      29 January 1999 (29.01.99)                      US 60/117,904                      29 January 1999 (29.01.99)                      US  <b>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications</b> US    60/117,904 (CIP) Filed on                                      29 January 1999 (29.01.99) US    60/117,905 (CIP) Filed on                                      29 January 1999 (29.01.99)  <b>(71) Applicant (for all designated States except US):</b> INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). LAL, Pretti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). HILLMAN, Jennifer, L. [US/US]; 230 Monrow Drive #12, Mountain View, CA 94040 (US). YUE, Henry [US/US]; 826		Lois Avenue, Sunnyvale, CA 94087 (US). AZIMZAI, Yalda [US/US]; 2045 Rock Springs Drive, Hayward, CA 94545 (US). LU, Aina, M., D. [US/US]; 55 Park Belmont Place, San Jose, CA 95136 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US). TRAN, Bao [US/US]; 744 Kiely Boulevard, Santa Clara, CA 95051 (US). SHIH, Leo, L. [US/US]; Apartment B., 1081 Tanland Drive, Palo Alto, CA 94303 (US). AU-YOUNG, Janice, L. [US/US]; 1419 Kains Avenue, Berkeley, CA 94702 (US).  <b>(74) Agents:</b> HAMLET-COX, Diana et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).  <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>
<b>(54) Title:</b> NUCLEIC-ACID BINDING PROTEINS  <b>(57) Abstract</b> <p>The invention provides human nucleic-acid binding proteins (NuABP) and polynucleotides which identify and encode NuABP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of NuABP.</p>		

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PF-0662 PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 00/ 02237</b>	International filing date (day/month/year) <b>28/01/2000</b>	(Earliest) Priority Date (day/month/year) <b>29/01/1999</b>
Applicant  <b>INCYTE PHARMACEUTICALS, INC. et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☒ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☒ furnished subsequently to this Authority in computer readable form.

☒ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

### 4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

### 5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

### 6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12Q1/68 C07K14/47 C07K16/18 G01N33/68  
A61K38/17

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N C12Q G01N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HILLIER ET AL.: "The WashU-Merck EST project" EMBL DATABASE ACC NO: R73178, 29 June 1995 (1995-06-29), XP002139426 abstract ---	1-15,17, 20,23
X	WO 95 14772 A (MATSUBARA KENICHI ;OKUBO KOUSAKU (JP)) 1 June 1995 (1995-06-01) page 394 -page 395 ---	1-15,17, 20,23
A	JANSEN ET AL.: "Preferential binding of yeast Rad4.Rad23 complex to damaged DNA" THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 273, no. 50, 11 December 1998 (1998-12-11), pages 33111-33114, XP002139427 page 33111, column 2; figures 1-4 --- -/-	1-17,20, 23

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

6 June 2000

Date of mailing of the international search report

27.09.00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

van Klompenburg, W

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 856 128 A (HAWKINS PHILLIP R ET AL) 5 January 1999 (1999-01-05) column 2, line 8 - line 34; claims 1-6 ---	1-17,20, 23
A	US 5 206 152 A (SUKHATME VIKAS P) 27 April 1993 (1993-04-27) column 1, line 11 - line 22; claims 1-12; example 8 ---	1-17,20, 23
A	GRISHIN N V: "The R3H motif: a domain that binds single-stranded nucleic acids" TIBS TRENDS IN BIOCHEMICAL SCIENCES,EN,ELSEVIER PUBLICATION, CAMBRIDGE, vol. 23, no. 9, 1 September 1998 (1998-09-01), pages 329-330, XP004146825 ISSN: 0968-0004 page 329, column 1; figures 1,2 ---	1-17,20, 23
A	MOROZOV V ET AL: "A putative nucleic acid-binding domain in Bloom's and Werner's syndrome helicases" TIBS TRENDS IN BIOCHEMICAL SCIENCES,EN,ELSEVIER PUBLICATION, CAMBRIDGE, vol. 22, no. 11, 1 November 1997 (1997-11-01), pages 417-418, XP004094961 ISSN: 0968-0004 page 417, column 1; figures 1,2 ---	1-17,20, 23
P,X	WO 99 33982 A (CHIRON CORP ;HYSEQ INC (US)) 8 July 1999 (1999-07-08) page 2, line 28 -page 3, line 15; claims 1-22 ----- g.)	1-14

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/02237

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claim 16 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 18,19,21,22  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
Claims 1-23 (all partially)

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.



FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

**Invention 1. Claims: 1-23 all partially**

An isolated polypeptide comprising an amino acid sequence of SEQ ID NO:1 or a naturally occurring amino acid sequence having 90% sequence identity thereto or a biologically or immunogenic fragment of SEQ ID NO:1. An isolated polynucleotide encoding said polypeptide, preferably of SEQ ID NO:56 or with at least 90% sequence identity thereto or a complementary polynucleotide. A recombinant polynucleotide comprising the above mentioned polynucleotide linked to a promoter sequence. A cell transformed with the recombinant polynucleotide and a transgenic organism comprising said recombinant polynucleotide. A method for producing the above mentioned polypeptide. An isolated antibody binding to said polypeptide. A method of detecting a target polynucleotide. A pharmaceutical composition comprising an effective amount of the above mentioned polynucleotide. A method of treating a disease, comprising administering the above mentioned pharmaceutical composition. Methods of screening for compounds that can act as agonist or antagonists or that alter the expression of said polypeptide, pharmaceutical compositions comprising these compounds and methods of treatment using these compositions.

**Inventions 2-55: Claims 1-23 all partially**

As invention 1 but for the polynucleotide sequences of SEQ ID NOs:57-110 and the corresponding polypeptide sequences of SEQ ID NOs: 3-5,7-14,16-31,33-34,36-40,42,48,50-55 as far as applicable.

For the sake of conciseness the first subject matter is explicitly defined and inventions 2-55 are defined by analogy thereto.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 18,19,21,22

Claims 18,19,21 and 22 refer to an antagonist and agonist of the polypeptides without giving a true technical characterization. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Art. 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9514772	A	01-06-1995	AU 8116494 A	13-06-1995
			CA 2153480 A	01-06-1995
			EP 0679716 A	02-11-1995
-----				
US 5856128	A	05-01-1999	US 6015788 A	18-01-2000
-----				
US 5206152	A	27-04-1993	US 5763209 A	09-06-1998
			WO 8909777 A	19-10-1989
			US 5773583 A	30-06-1998
			US 5866325 A	02-02-1999
-----				
WO 9933982	A	08-07-1999	AU 2095599 A	19-07-1999
			AU 4187499 A	29-11-1999
			WO 9938972 A	05-08-1999
			WO 9958675 A	18-11-1999
			AU 6263999 A	17-04-2000
			WO 0018916 A	06-04-2000
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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/27610

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/12 C07K14/47 C07K16/18 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C07K C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>CARMECI, C. ET AL.: "Identification of a gene (GPR30) with homolgy to the G-protein-coupled receptor superfamily associated with estrogen receptor expression in breast cancer." GENOMICS, vol. 45, no. 3, 1 November 1997 (1997-11-01), pages 607-17, XP002099963 abstract page 608, left-hand column, paragraph 3</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-7



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search

15 April 1999

Date of mailing of the international search report

11. 11. 99

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Smalt, R

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	YEATMAN, T.J. ET AL.: "Identification of genetic alterations associated with the process of human experimental colon cancer liver metastasis in the nude mouse." CLINICAL AND EXPERIMENTAL METASTASIS, vol. 14, no. 3, May 1996 (1996-05), pages 246-252, XP002099961 abstract ---	1-7
X	NUCLEIC ACID RESEARCH, vol. 23, no. 19, 1995, pages 4007-8, XP002099962 cited in the application the whole document ---	1-7
A	RADINSKY, R. ET AL.: "Level and function of epidermal growth factor receptor predict the metastatic potential of human colon carcinoma cells." CLINICAL CANCER RESEARCH, vol. 1, January 1995 (1995-01), pages 19-31, XP002099964 the whole document ---	
A	BALDI, A. ET AL.: "Differential expression of the retinoblastoma gene family members pRb/p105, p107, and pRb2/p130 in lung cancer." CLINICAL CANCER RESEARCH, vol. 2, July 1996 (1996-07), pages 1239-45, XP002099965 the whole document -----	

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/27610

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
  
see FURTHER INFORMATION SHEET
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

SEE ADDITIONAL SHEET

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-7

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: Invention 1: claims 1-7

A library of polynucleotides comprising the sequence information of at least one of the sequences 1-844.

2. Claims: Invention 2: claims 8,13-19,21 all partially

The isolated nucleic acid with seq.ID 1, sequences with at least 90% sequence identity therewith and degenerate variants thereof, host comprising said nucleic acid, peptide encoded by said nucleic acid, antibody against said protein, vector comprising said nucleic acid, and a method for detecting the differential expression of said nucleic acid.

3. Claims: Inventions 3-845: claims 8-22, all partially,  
as far as applicable

As invention 2, but limited respectively to the seq.ID's 2-844

For the sake of conciseness, the second subject matter is explicitly defined, the subject matters of inventions 3-845 are defined by analogy thereto.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

In view of the large number of libraries, which are defined by the general definition in the independent claim 1, the search had to be restricted for economic reasons. The search was limited to the libraries for which data was given in the description, or libraries derived from cell lines mentioned in table 4 of the description, and to the general idea underlying the application (see Guidelines, Part B, Chapter III, paragraph 3.6).





<b>(51) 国際特許分類6</b> <b>C12N 15/11, C12Q 1/68 // G01N 33/566</b>	<b>A1</b>	<b>(11) 国際公開番号</b> <b>WO 95/14772</b> <b>(43) 国際公開日</b> 1995年6月1日 (01.06.95)
<b>(21) 国際出願番号</b> PCT/JP94/01916 <b>(22) 国際出願日</b> 1994年11月11日(11.11.94)  <b>(30) 優先権データ</b> 特願平5/355504 1993年11月12日(12.11.93) JP  <b>(71) 出願人：および</b> <b>(72) 発明者</b> 松原謙一(MATSUBARA, Kenichi)[JP/JP] 〒565 大阪府吹田市山田東3-18-1-804 Osaka, (JP) 大久保公策(OKUBO, Kousaku)[JP/JP] 〒562 大阪府箕面市瀬川2-11-26 Osaka, (JP) <b>(74) 代理人</b> 弁理士 吉田研二, 外(YOSHIDA, Kenji et al.) 〒180 東京都武蔵野市吉祥寺本町1丁目34番12号 Tokyo, (JP)		<b>(81) 指定国</b> AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN, 欧州特許(AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI特許(BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO特許(KE, MW, SD, SZ).  <b>添付公開書類</b> <b>国際調査報告書</b> 補正書
<b>(54) Title : GENE SIGNATURE</b>  <b>(54) 発明の名称</b> ジーン・シグナチャー  <b>(57) Abstract</b>  A 3'-directed cDNA library which accurately reflects the abundance ratio of mRNA in a cell has been prepared from various human tissues, and sequencing of the cDNAs contained in the library has been conducted to examine the incidence of each cDNA in each tissue. As each cDNA has expression information with each tissue corresponding to the mRNA concentration, these cDNAs are usable as a probe or primer for detecting cell anomaly or discriminating cells. The cloned gene can produce proteins utilizable as a medicine or the like.		

配列番号 : 483

配列の長さ : 517

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00539

配列 :

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GATCATGCTT TTNGTGCCTG TCACCAGGTC TCCCAAGTGC ACTCATCCAG GTCAGTGCTC 60
AGATGTGTTT AAGGAGACCC TATATTCAGG GAAGTTGCGT GAACACTGCA GTGGGGAGAA 120
TTGAGAATAG TCAGGCCTAT CAGTCTCACA GAATCACCCC TCTACCTTTG ATATTCCACT 180
TAGCTGTAGA GTCCATCTGT TTGTCCATCT GCTGAAATGA GAAAAGAAAA ATTTATGCAC 240
TGATTTAAAA CAAACCAAAA AAAAAGAAAA AAACAAAAAA AAAATCCNT CCTTCTNGC 300
TGACCAAAAN TGTGCAGTTA ATNCTGGGNG CTTGAAANTG CAGTGGTGAA TNTGGACCA 360
GCCTGTCTGT ATATCTGGTA GCTCTTTTCT GGCTTNGTTT TTNCTTACCA GTATTCNGGC 420
CTAACGTTTT GCTTCGGGNN TGGTAATATN NCCTNGNAAG NACANCNGTG GGTGTGGAA 480
ATGGGTTNGG CAAAANGGAA NTTCCNGGGG TNTTGGN 517

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配列番号 : 484

配列の長さ : 515

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00540

配列 :

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GATCTTCTGG CTCTACCACC ACAAGATATT ATCCTTGCACT CTNATGTGTT CTTTGAACCA 60
GAAGATTTTA AAGACATTTT GGCTACAATA TATTTNTTAA TGCACAAGAA TCCCAAGGTC 120
CAATTGTGGT CTACTTATCA AGTTAGGAGT GCTGACTGGT CACTTGAAGC TTTACTCTAC 180
AAATGGGATA TGAATGTGT CCACANNNT CTTGAGTCTT TTGATGCAGA CAAAGAAGAT 240
ATAGCAGAAT CTACCNTTCC AGGAAGACAT ACAGTTGAAA TGCTGGTCAT TTCCTTGCA 300
AAGNACAGTC TCTGAATNAT ACCNACAACC NGTNCTGGGA CAGTATCAAT ACTGATGAGC 360
AACCNGGCAC ACAAATATG AGCAGACCAC TTCAGCTTGA GGAATGCAGT GGGTCTGAGG 420
ATGGTCAAGT CTGTTTGCCT TAGATTTTGN TGCACTTGG CCACACTTGA AANCTNNTT 480
GGAACAAAAN TTAAATTCTG GGTTCCTCAAG GTAAA 515

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配列番号 : 485

配列の長さ : 510

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00541

配列 :

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GATCTGCAGC TCTCAGAGGA CGACTGAGGC AGCCCATCTG GGGGGCCTGT AGGGGCTGCC 60
GGGCTGGTGG CCAGTNTTTC CACCTCCCTG GCAGTCAGGC CTAGAGGCTG GCGTCTGTGC 120
AGTTGGGGGA GGCAGTAGAC ACGGGACAGG CTTTATNATT TATTTTINAG CATGAAAGAC 180
CAAACGTATC GAGAGCTGGG CTGGGCTGGG CTGGTGTGGC TGCTGAAGCC CCACAGCTGT 240
GGGCTGCTGA AGTCAGTCC GCGGGGGAGC TGCCCTGACG TCAGCAGACC GAGACCAGTC 300
CCAGTTCAG GGGGAGGCCT GCAGGCNCTG GCCCTTCCAC CACCTNTGCC CTNCGTCTGC 360

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AGANCTTGGT NCATCTGCAC CAGGCTCTGC TTNACTCNNN NANAGTNTTT GGAAATTTGT 420  
 TCTNNTCCTN TGAAAGTCAC ATTTGNTTNT AAAAATTTTG TGGNTTGAAT CGGAAACGGG 480  
 AAGNAATAAA GCGGTGGGNG GNAGGGCAAA 510

配列番号 : 486

配列の長さ : 507

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00542

配列 :

GATCCTTACA TCTGCCCATT CTGTGGTTAG TCAATGGCTT GCAATAAATG TGCAAACCTGC 60  
 ATCTATAGGA AACATTTTGG TGATTACGGA ATACTTTAGT TGATTGCTGA AAATATTGAA 120  
 AGGTCTTCAT TTTACAGTGA TGAGTACATA TGCATGTTTC GGGGACTTGG CCCTTCTGAT 180  
 GAGGGGCCCT CGGTACTCTG GATAACGAAG CTTGTGCAGA GTGGTAACCA TGCTTACACA 240  
 CTAAACTATA ATATAAAGGA AATGAAGCCA TGTTAATCTG AGAGCAGTGT CGCCATAGTT 300  
 GTGTTGTTTA CAATACTCTA TAAATGGGGT TCCTGTTGCC CTGTAATTAA CCTGCTGCCC 360  
 GTAGAGGCCT TTCCAGTTCC TTTTCTGTCC TTNCCCCTTT CTTAACACAA GCTCAAATTT 420  
 TCCTAACTNG GTTTTNNATT TGGAGGNCCT TTAANAANGN CCATTTTCAA TACCATNAAA 480  
 ANTAACCAGG GCTTTATAAT ANTAAA 507

配列番号 : 487

配列の長さ : 155

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00543

配列 :

GATCCACTAC CGGAAGAAGA AACAGCTCAT NAGGCTACGG AAACAGGCCG AGAAGAACGT 60  
 NGAGAAGAAA ATTGACAAAT ACACAGAGGT CCTCAAGACC CACGGACTCC TGGTCTTAGC 120  
 CCAATAAAGA CTGTTAATTC CTCAAAAAAA NGAAA 155

配列番号 : 488

配列の長さ : 499

配列の型 : 核酸

トポロジー : 直鎖状

クローン名 : HUMGS00544

配列 :

GATCITAAAA ACTAACTTCT AAGATGATTT CATCTTCTCA TAGTATAGAG TTTACTTTGT 60  
 ACACGTTTGA AACCAACTAC TGTAGAAGAT GAGGAATCTA TTGTAATTTT TTGCTTTATT 120  
 TTCATCTGCC AGTGGACTTA TTTGAAATTT TCACTTTAGT CAAATNATTT TTNGTATTAG 180  
 TTTTGTATGC AGACATAAAA ATAGCAATCA TTTTAAATNG TCAAAATTTT CAGATTACTG 240  
 GTAAAAATTA TTTGAAAACA AACTTATGGG TAATAAAGGC TAGTCAGAAC CNTATACCAT 300  
 AAAGTGTAGT TACCATACAG ATTAATATGT AGCAAAANTG TATGCTTGAT ATTNCTCACC 360  
 NGTGNTAATG TTNCTGCNGT ATTCCAGCNG ACCAAACCAA TATTAAGNAT GCATCTGTAT 420  
 AAAATGGGNG CCTATNGGNT AATGGGAATN ATTNGGGTAA TNGGCCTNTA CCNGGNTGGT 480  
 NATAATGGNG CCCTNTGGN 499